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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0603713N: <i>Ocean Engineering Tech Dev</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	16.652	13.560	9.996	-	9.996	7.236	7.405	7.574	7.709	Continuing	Continuing
0099: <i>Deep Submergence Bio Med Dev</i>	3.183	3.149	3.507	-	3.507	3.563	3.644	3.721	3.785	Continuing	Continuing
0394: <i>Shallow Depth Diving EQ</i>	13.469	10.411	6.489	-	6.489	3.673	3.761	3.853	3.924	Continuing	Continuing

A. Mission Description and Budget Item Justification

Developments in this program will enable the U.S. Navy to overcome deficiencies that constrain underwater operations in the areas of search, location, rescue, recovery, salvage, construction, and protection of offshore assets. This program develops medical technology, diver life support equipment, and the vehicles, systems, tools, and procedures to permit manned underwater operations.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	17.256	13.560	10.251	-	10.251
Current President's Budget	16.652	13.560	9.996	-	9.996
Total Adjustments	-0.604	-	-0.255	-	-0.255
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.604	-			
• Program Adjustments	-	-	-0.234	-	-0.234
• Rate/Misc Adjustments	-	-	-0.021	-	-0.021

UNCLASSIFIED

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev				PROJECT 0099: Deep Submergence Bio Med Dev			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0099: Deep Submergence Bio Med Dev	3.183	3.149	3.507	-	3.507	3.563	3.644	3.721	3.785	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This project:

- 1) Develops advanced biomedical and bioengineering technology for enhancing medical and life support for submarine escape and rescue;
- 2) Conducts research for diver health, safety and effectiveness; and
- 3) Supports deeper, longer, and more flexible dives.

Deliverables for DISSUB (disabled submarine) include: medical procedures for submarine escape and rescue (including new Submarine Rescue Diving and Recompression System (SRDRS)), life support parameters, medical procedures for life support, exposure guidance for atmospheric contaminants, non-chemical CO2 scrubbing, prevention and treatment of decompression illness, and senior survivor expert decision system.

Deliverables for diver enhancement include: exposure guidance for diver underwater continuous noise, impulse noise, and underwater blast, exposure guidance for oxygen breathing, collection of operational diving depth/time profiles to predict decompression risk, and enhanced underwater swimming efficiency.

Requirements: NAPDD #587-873, Deep Submergence Biomedical Development, 23 November 1999.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2010	FY 2011	FY 2012
Title: Deep Submergence Bio Med Dev - Diver Health and Safety	1.585	1.484	1.764
Articles:	0	0	0
Description: Diver Health and Safety Research: Pulmonary oxygen toxicity exposure limits. Procedures for assessing and mitigating risk for diving in contaminated water. Procedure to determine remaining CO2 scrubber duration. Development of advanced insulation garments for diver thermal protection. Develop guidance for optimizing thermal control during decompression. Continue collection of operational dive profiles for advanced modeling. Novel methods for diver thermal protection. Improve resistance to O2 toxicity. Diver anthropometry. Chemical hardening of diving equipment. Predictive index of visual and auditory O2 toxicity. Guidelines for flying after diving. Guidelines for infra- and ultra-sound diver exposure. Develop an advanced diver thermal model. Electronic collection of operational dive data. Diver sound monitor.			
FY 2010 Accomplishments:			

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev	PROJECT 0099: Deep Submergence Bio Med Dev		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Begin pulmonary oxygen toxicity exposure limits. Survey of long-term health effects of USN Divers. Continue the mechanics of isobaric oxygen pre-breath effectiveness. Screening tests for susceptibility to Immersion Pulmonary Edema (IPE). Continue the effects of exercise and diver's thermal environment on Nitrogen Uptake and Elimination. FY 2011 Plans: Continue the pulmonary oxygen toxicity exposure limits. Continue screening tests for susceptibility to Immersion Pulmonary Edema (IPE). Continue the effects of exercise and diver's thermal environment on Nitrogen Uptake and Elimination. FY 2012 Plans: N/A				
Title: Deep Submergence Bio Med Dev - Submarine Rescue Articles: Description: Submarine Rescue: Decompression procedures for pressurized SRDRS operators. Use of perfluorocarbons to accelerate decompression in submarine rescue. Adjunctive therapies for treating DISSUB survivors. Guidance for food, water, clothing, medical supplies to enhance survival of submarine crews awaiting rescue. Flexible computer generated decompression schedules for wide range of conditions in a DISSUB. Develop DISSUB triage procedures. DISSUB survival trial. Develop oxygen metabolizer for closed vehicles. Treatment guidance for decompression sickness and arterial gas embolism in submarine escape and rescue. Interventions for toxicological problems with rescued submariners. Minimizing decompression sickness and arterial gas embolism with Submarine Escape and Immersion Suit (SEIS) training. Use of pharmacologic agents to reduce decompression risk in submarine rescuees. Development of toxic gas analyzer for use in pressurized DISSUB. FY 2010 Accomplishments: Continue the Accelerated Decompression for the Submarine Emergency Operating Procedures. Continue the impact of Nitric Oxide Donor in 70Kg Swine Saturation Drop Out. Continue the risk analysis program for pressurized Sub Escape training. Continue Guidance and Protection for Exposure to Underwater Blast. Development of decompression schedule for Submarine Escape and Rescue Using Sheep Model. FY 2011 Plans: Continue the Impact of Nitric Oxide Donor in 70KG Swine Saturation Drop Out. Continue development of decompression schedule for Submarine Escape and Rescue Using Sheep Model. FY 2012 Plans:		1.598 0	1.665 0	1.743 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
Continue development of decompression schedule for Submarine Escape and Rescue Using Sheep Model. Prediction for DISSUB Rescue using 70KG Swine Dropout Decompression.			
Accomplishments/Planned Programs Subtotals		3.183	3.149
C. Other Program Funding Summary (\$ in Millions) N/A			
D. Acquisition Strategy Integrated thrust area teams (e.g., decompression research) are established with university, commercial, and in-house Navy labs to jointly execute biomedical R&D. Peer review of research proposals accomplished by independent Technical Advisory Board. Annual review of progress by Executive Review Board (CNO/NAVSEA/ONR/BUMED). Program management by 0-6 Medical Dept Officer. Contracting by competitive process using BAA and leveraging ONR capabilities.			
E. Performance Metrics Quarterly Program Reviews			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev				PROJECT 0099: Deep Submergence Bio Med Dev					

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation	WR	NEDU:Panama City, FL	11.949	1.884	Oct 2010	2.069	Oct 2011	-		2.069	Continuing	Continuing	Continuing
Development Test & Evaluation	WR	NRC:Silver Spring, MD	3.455	1.189	Oct 2010	1.333	Oct 2011	-		1.333	Continuing	Continuing	Continuing
Subtotal			15.404	3.073		3.402		-		3.402			

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various	Various:Various	0.055	0.031	Oct 2010	0.046	Oct 2011	-		0.046	Continuing	Continuing	Continuing
Travel	Various	Various:Various	0.138	0.045	Oct 2010	0.059	Oct 2011	-		0.059	Continuing	Continuing	Continuing
*SBIR Assessment	Various	Various:Various	0.182	-		-		-		-	Continuing	Continuing	Continuing
Acquisition Workforce	Various	Various:Various	0.016	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			0.391	0.076		0.105		-		0.105			

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			15.795	3.149		3.507		-		3.507			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0099: <i>Deep Submergence Bio Med Dev</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0099				
FY10 DSBDP R&D Execution	1	2010	4	2010
FY11 Broad Agency Announcement Published (DSBDP R&D Priorities)	3	2010	3	2010
Invitation for FY11 Pre-Proposals	3	2010	3	2010
Submission of FY11 Pre-Proposals	3	2010	3	2010
Request for Full Proposals from Approved FY11 Pre-Proposals	3	2010	4	2010
Submission of FY11 Full Proposals	3	2010	4	2010
Full FY11 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2010	4	2010
TAB Meets to Prioritize DSBDP FY11 Proposals	4	2010	4	2010
Brief Sponsor on TAB Prioritized DSBDP FY11 R&D Program	4	2010	4	2010
Forward FY11 Proposal Approval Letters, Navy Lab Guidance Letters	4	2010	4	2010
FY11 DSBDP R&D Execution	1	2011	4	2011
FY12 Broad Agency Announcement Published (DSBDP R&D Priorities)	3	2011	3	2011
Invitation for FY12 Pre-Proposals	3	2011	3	2011
Submission of FY12 Pre-Proposals	3	2011	4	2011
Request for Full Proposals from Approved FY12 Pre-Proposals	3	2011	4	2011
Submission of FY12 Full Proposals	1	2010	1	2010
Full FY12 Proposal Review by DSBDP Technical Advisory Board (TAB)	4	2011	4	2011
TAB Meets to Prioritize DSBDP FY12 Proposals	4	2011	4	2011
Brief Sponsor on TAB Prioritized DSBDP FY12 R&D Program	4	2011	4	2011
Forward FY12 Proposal Approval Letters, Navy Lab Guidance Letters	4	2011	4	2011
FY12 DSBDP R&D Execution	1	2012	4	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev				PROJECT 0394: Shallow Depth Diving EQ			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0394: Shallow Depth Diving EQ	13.469	10.411	6.489	-	6.489	3.673	3.761	3.853	3.924	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
<p>This project is to develop systems to support submarine escape, survivability, rescue missions, and conventional diver operations. Diver operations include ship husbandry, salvage/recovery, and submarine rescue operations to support national, as well as, Navy needs around the world. Modern certifiable diving systems that ensure diver safety and allow maximum work efficiency will replace currently antiquated systems. Efforts through FY14 focus on the Submarine Rescue Diving and Recompression System (SRDRS) to provide a new rapidly deployed emergency submarine rescue capability. SRDRS provides a new capability of pressurized transportation of rescuees from a stricken submarine directly to the decompression system replacing the Deep Submergence Rescue Vehicles and Mother Submarines. SRDRS includes an air transportable rapid Assessment/Underwater Work System (AUWS), a Pressurized Rescue Module (PRM) or Rescue Capable System (RCS), and a Submarine Decompression System (SDS). The AUWS is in service and supports clearing disabled submarine seating surfaces, delivery of emergency life support stores, and disabled submarine assessment. The Submarine Rescue System-Rescue Capable System (SRS-RCS) completed OPEVAL in FY08 and is rescue ready. The Submarine Rescue System-Submarine Decompression System (SRS-SDS) is scheduled for IOC in FY14. The SRDRS will provide a global rapid response capability to support submarine rescue missions with an increase in capability at a fraction of the cost of the currently available systems.</p> <p>Shallow Depth Diving Equipment managed under SEA00C - This project develops systems to support submarine escape and rescue missions, and conventional diver operations. Diver operations include ship husbandry, salvage/recovery, and submarine rescue operations to support national, as well as Navy, needs around the world. Modern certifiable diving systems that ensure diver safety and allow maximum work efficiency will replace currently antiquated systems. R&D will be performed in the areas of contaminated water diving, diver thermal protection, and diver sound protection.</p>											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: Shallow Depth Diving EQ - SRDRS Articles: Description: Continue design, fabrication, and acceptance testing of the prototype Submarine Decompression System and support equipment. Continue integration of all SRDRS components. FY 2010 Accomplishments: Continued design/development/fabrication of Submarine Decompression System Primary Elements including: Submarine Decompression Chamber 1 and 2 repairs and modifications; Pressurized Flexible Manway 1, 2, and 3; Deck Transfer Lock; Gas Rack fabrication; and Mission and Auxiliary Support Equipment. Performed Submarine Decompression Chamber 1 and 2 developmental testing. Completed Gas Rack material audit and plan to complete Gas Rack developmental testing. FY 2011 Plans:								12.213	9.246	5.273	
								0	0	0	

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev	PROJECT 0394: Shallow Depth Diving EQ		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Continued design/development/fabrication of Submarine Decompression System Primary Elements including: Submarine Decompression Chamber 1 and 2 repairs and modifications; Pressurized Flexible Manway 1, 2, and 3; Deck Transfer Lock; and Mission and Auxiliary Support Equipment. Plan to complete material audits for Deck Interconnects and Modified Transfer Lock. Plan to perform developmental testing for Deek Interconnects, Submarine Decompression Chambers 1 and 2, and Pressurized Flexible Manway 1 and 2. FY 2012 Plans: Continued design/development/fabrication of Submarine Decompression System Primary Elements including: Submarine Decompression Chamber 1 and 2 repairs and modifications; Pressurized Flexible Manway 3; Deck Transfer Lock; and Mission and Auxiliary Support Equipment. Plan to complete material audits for Submarine Decompression System Ship Interface Template Sets, Pressurized Flexible Manway 3, Deck Transfer Lock, Submarine Decompression Chambers 1 and 2, and Morgan Breathing System 2000. Plan to perform developmental testing for Modified Transfer Lock, Ship Interface Template Sets, Pressurized Flexible Manway 3, Morgan Breathing System 2000, and the Deck Transfer Lock.				
Title: Shallow Depth Diving EQ - Diving Articles: Description: Continue research on contaminated water diving and research on diver thermal protection and CO2 monitors, and diver sound protection. FY 2010 Accomplishments: Continued research on contaminated water diving, diver thermal protection, CO2 monitors, and diver sound protection. Continued the research on prototype diver cooling system. Commenced research on validation of air and oil monitors. FY 2011 Plans: Continue research on contaminated water diving, CO2 monitors, and diver sound protection. Continue research on the prototype diver cooling system. Continue research on validation of air and oil monitors. FY 2012 Plans: Continue research on contaminated water diving, diver thermal protection, CO2 monitors, and diver sound protection. Continue the research on prototype diver cooling system. Continue research on validation of air and oil monitors.		1.256 0	1.165 0	1.216 0
Accomplishments/Planned Programs Subtotals		13.469	10.411	6.489

UNCLASSIFIED

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0394: <i>Shallow Depth Diving EQ</i>
<u>C. Other Program Funding Summary (\$ in Millions)</u> N/A		
<u>D. Acquisition Strategy</u> The Submarine Rescue system (SRS) segment of the SRDRS is largely based on the use of Commercial-Off-the-Shelf (COTS) technology and maximum use of Non-Developmental Items (NDI). The SRS segment is being procured using performance based specifications. Many of the SRS contracts were awarded competitively and were based on technical capability and cost considerations (best value). Program management of SRDRS is accomplished through the use of Program Executive Officer, Submarines (PEO SUB) leadership. This change was enacted in February 2003 realigning the responsibility from SEA00C to PEOSUB. The Prototype system provides full operational capability and no additional procurement is planned. The system is designed to be Government Owned/Commercially Operated/Commercially Maintained (GO/CO/CM).		
<u>E. Performance Metrics</u> Quarterly Program Reviews and Critical Design Reviews.		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy										DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev				PROJECT 0394: Shallow Depth Diving EQ						
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Pressurized Rescue Module System (PRMS)	C/CPIF	Oceanworks:Ontario, Canada	23.824	-		-		-		-	0.000	23.824		
PRMS	C/FFP	Oceanworks:Ontario, Canada	4.150	-		-		-		-	0.000	4.150		
Systems Engineering - Design, Integration	C/CPAF	Oceaneering:Hanover, MD	17.978	3.177	Oct 2010	1.597	Oct 2011	-		1.597	Continuing	Continuing	Continuing	
Systems Engineering - Technical	Various	Various:Various	0.537	-		-		-		-	Continuing	Continuing	Continuing	
Systems Engineering - Design, Integration	C/CPAF	Oceaneering:Hanover, MD	-	1.986	Jan 2011	0.934	Jan 2012	-		0.934	0.000	2.920		
Systems Engineering - Design, Integration	C/CPAF	Oceaneering:Hanover, MD	-	2.145	Apr 2011	1.078	Apr 2012	-		1.078	0.000	3.223		
Systems Engineering - Design & Integration	C/CPAF	Oceaneering:Hanover, MD	-	0.635	Sep 2011	0.320	Sep 2012	-		0.320	0.000	0.955		
Subtotal			46.489	7.943		3.929		-		3.929				
Remarks														
1. Oceaneering is the prime for SRDRS Transfer Under Pressure (TUP) capability; scheduled for IOC in FY14.														
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Development Support	Various	Various:Various	3.656	1.150	Oct 2010	1.208	Oct 2011	-		1.208	Continuing	Continuing	Continuing	
Integrated Logistics Support	Various	Various:Various	0.841	-		-		-		-	Continuing	Continuing	Continuing	
Configuration Management	C/CPAF	Oceaneering:Hanover, MD	0.489	-		-		-		-	Continuing	Continuing	Continuing	
Subtotal			4.986	1.150		1.208		-		1.208				
Remarks														
Items citing various are issued to multiple government activities to be placed on contract vehicles. Contract competitions for these efforts are in process.														

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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	3.187	-		-		-		-	Continuing	Continuing	Continuing
Operational Test & Evaluation	WR	COMOPTEVFOR:Norfolk, VA	0.525	0.050	Oct 2010	0.050	Oct 2011	-		0.050	Continuing	Continuing	Continuing
Subtotal			3.712	0.050		0.050		-		0.050			
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	Various	QBS/Various:Richmond BC, Canada/Various	0.074	-		-		-		-	Continuing	Continuing	Continuing
Government Engineering Support	WR	NFESC:Port Hueneme, CA	0.197	-		-		-		-	Continuing	Continuing	Continuing
Government Engineering Support	WR	PSNSY/ Various:Bremerton, WA/Various	2.120	0.077	Oct 2010	0.075	Oct 2011	-		0.075	Continuing	Continuing	Continuing
Government Engineering Support	Various	Various:Various	1.859	-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	Various	Perot:Washington, DC	2.110	-		-		-		-	Continuing	Continuing	Continuing
Travel	Various	NAVSEA:Washington, DC	0.474	0.115	Oct 2010	0.108	Oct 2011	-		0.108	Continuing	Continuing	Continuing
SBIR Assessment	Various	Various:Various	0.443	-		-		-		-	Continuing	Continuing	Continuing
Acquisition Workforce	Various	Various:Various	0.021	-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	Various	Various:Various	-	0.430	Oct 2010	0.448	Oct 2011	-		0.448	0.000	0.878	
Program Management Support	Various	Various:Various	-	0.269	Jan 2011	0.280	Jan 2012	-		0.280	0.000	0.549	
Program Management Support	Various	Various:Various	-	0.377	Apr 2011	0.391	Apr 2012	-		0.391	0.000	0.768	

UNCLASSIFIED

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Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			7.298	1.268		1.302		-		1.302				

Remarks Items citing various are due to contract competitions in process.													
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	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	62.485	10.411		6.489		-		6.489			

Remarks											
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UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev	PROJECT 0394: Shallow Depth Diving EQ

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603713N: Ocean Engineering Tech Dev	PROJECT 0394: Shallow Depth Diving EQ	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 0394				
Acquisition Milestones	1	2010	4	2016
SRDRS IOC	3	2014	3	2014
Design & Production-SDS Primary Elements	1	2010	4	2012
SDC 1 & 2 Repairs & Modifications	1	2010	1	2012
PFMS 1 & 2 (SRR, PDR, CDR Presented)	1	2010	4	2011
PFM 3 (SRR & PDR Presented)	1	2010	3	2012
DTL (CDR Presented)	1	2010	3	2012
SDS Gas Rack (CDR Presented)	1	2010	3	2010
SDS MSE & AE	1	2010	4	2012
MBS 2000 Base Unit Upgrades	1	2010	1	2011
SDS Deck Interconnects (54)	1	2010	1	2011
SDS Templates (SDS SITS)	1	2010	4	2012
MTL 1 & 2 Mods & Base SITS	2	2010	2	2012
Configuration Audits	3	2010	2	2013
Material Audits (PCAs)	3	2010	4	2012
System Integration Audits (FCAs)	2	2013	2	2013
T&E Milestones	1	2010	3	2014
Developmental Testing (SDS Elements)	1	2010	4	2012
Integration & Sea Trials Testing	1	2010	3	2014
SDS Element Integration @ OII	1	2010	3	2013
Ship to DSU	3	2013	3	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603713N: <i>Ocean Engineering Tech Dev</i>	PROJECT 0394: <i>Shallow Depth Diving EQ</i>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SRS System Integration @ DSU	3	2013	1	2014
OPEVAL & ORE	1	2014	3	2014
Post Delivery Shakedown	1	2010	2	2016
Preplanned Product Improvements (RCS & TUP)	1	2015	4	2016

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